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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,141	03/27/2001	Aya Imada	35.G2764	7091

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EXAMINER

DUVERNE, JEAN F

ART UNIT PAPER NUMBER

2839

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/817,141

Applicant(s)

IMADA, AYA

Examiner

Jean F. Duverne

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al (US patent 4,989,943) in view of Japan patent application (61-59303).

For claims 1-9, Yoshinaga's device discloses a plastic fiber (10) including a core and a cladding at 104; a lens (12) for controlling the light rays having a spherical light condensing lens. The lens is being integrated with the plastic optical fiber by heating and pressing the lens at high temperature (heating) and the use adhesive material with bonding features. The lens is formed with glass. The optical fiber with the outer sleeve is smaller than the lens (see fig. 20). However, Yoshinaga's device fails to explicitly disclose the glass material that the lens is made of and the lens being at least partially embedded in the end face of the plastic optical fiber. Japan Patent application (61-59303) discloses the lens being at least partially embedded in the end face of the plastic optical fiber. It would have been obvious at the time the invention was made to one having ordinary skill in the art to use the lens with thermally-softening temperature higher than a thermally softening temperature than the optical core fiber, since it has been held to within the general skill of a worker in the art to select a known material on

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the basis of its suitability for the intended use as a matter to meet design requirement. In re Leshin, 125 USPQ 416. It would have been obvious at the time the invention was made to one having ordinary skill in the art to use the lens with thermally-softening temperature higher than a thermally softening temperature in order to response to the environmental needs. It would also have been obvious at the time the invention was made to one having ordinary skill in the art to have the lens at least partially embedded in the end face of the plastic optical fiber to control the light projection in the fiber.

For claims 16-28, Yoshinaga's and Japan patent application devices disclose the aforementioned limitations including the device (22) that is used as a substrate to hold the lens and the optical fiber.

For claims 10-15 and 29-34, Yoshinaga's and Japan patent application devices disclose the aforementioned limitations except for the method of fabricating an optical fiber with lens. The method of forming or fabricating the optical fiber is an obvious variation because the limitations recited in the apparatus claims are identical to the method claims.

### ***Conclusion***

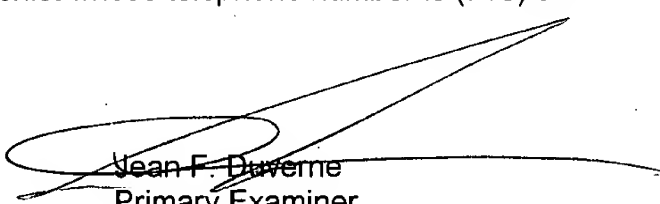
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean F. Duverne whose telephone number is (703) 305-0297. The examiner can normally be reached on 9:30-8:00, Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JFD  
8/11/2003



Jean F. Duverne  
Primary Examiner  
Art Unit 2839